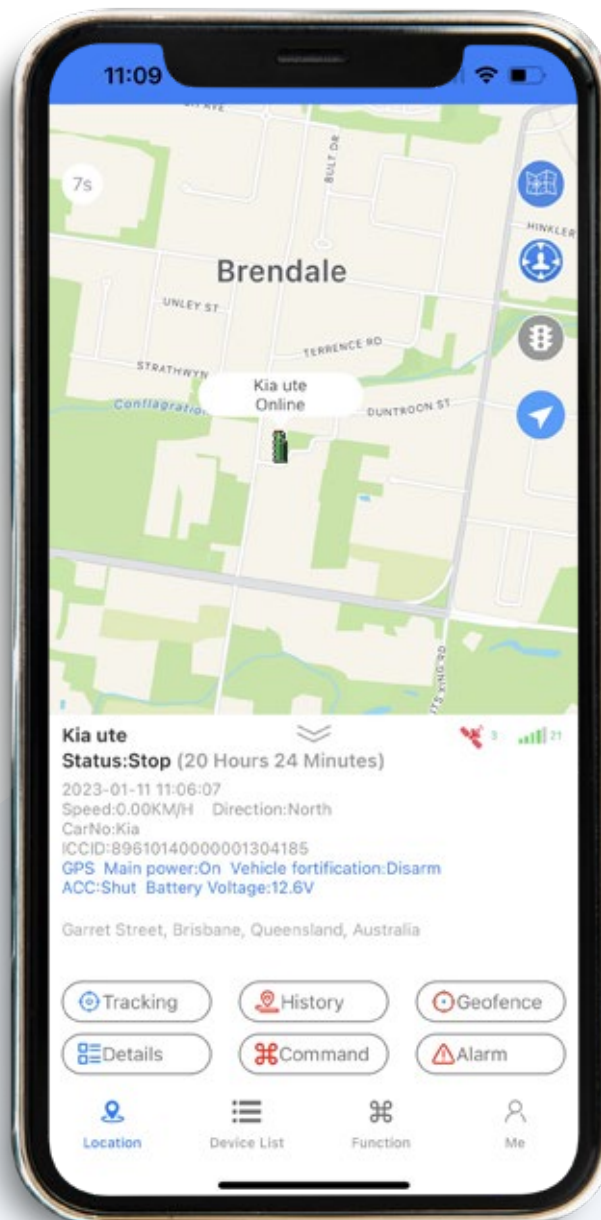# AAV 4X4

AUSTRALIAN ADVENTURE VEHICLES

4G GPS TRACKER 12-24 volt

Dual Passwords for Double Data Protection & Security

OWNERS OPERATION MANUAL

REQUIRED: This product requires a mobile SIM card (not included). Data only SIM cards are not compatible.

PRODUCT FUNCTIONS & PARAMETERS

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PRODUCT FUNCTIONS

Geo-Fence, Main Power Failure Alarm, Vibration Alarm, Displacement Alarm, Location Query, Historical Trips Playback, Immobilize Vehicle

PRODUCT PARAMETERS

GSM Features	Communication Chip	ARS 1603	
	Communication Band	LTE/4G	LTE-FDD:B1/B3/B5/B8
			LTE-TDD:B34/B38/B39/B40/B41
		GSM/EDGE/2G	900/1800 MHz
GPS/BD Positioning Features	SIM Card	Standard SIM Card	
	Positioning Chip	ZKMicro	
	Positioning Method	BD+GPS	
	Cold Start	Average. 30 Seconds	
	Hot Start	Average. 1 Second	
	Tracking Sensitivity	-162 dBm	
	Capture Sensitivity	-158 dBm	
	Positioning Antenna	Built-in Antenna	
	GPS Bands	L1: 1575.42±1.023MHz	
	Beidou Bands	B1: 1561.098±2.046MHz	
	Satellites Channels	136	
	Accuracy	Precise Positioning < 5m	
	Timing Accuracy	20ns	
	Speed Accuracy	0.1m/s CEP	
	Maximum Acceleration	4g	
	Maximum Speed	515m/s	
	Maximum Height	18000m	

IMPORTANT NOTE: This product only supports installation and use within the voltage tolerance range. All consequences caused by illegal installation and use outside the voltage tolerance range shall be borne by the user!

PRODUCT ACCESSORIES & LED INDICATOR

PRODUCT ACCESSORIES:

Standard: Device/Power Cable/Quick User Guideline/Double-sided Stickers. **Optional:** Microphone, SOS Button, Relay

TERMINAL LED WORKING STATUS

Yellow LED (GSM Signal Status)

LED Status	Description
Slowly Flickering	GSM Initialization
Fast Flickering	Failed Reading Card
On	GPRS Communication is normal/has been online
Off	GSM Sleeping / Disconnect with power

Blue LED (GPS Signal Status)

LED Status	Description
Slowly Flickering	GPS Searching Signal
Fast Flickering	GPS Chip doesn't work
On	GPS Positioned
Off	GPS Sleep/ Disconnect with Power

TERMINAL INSTALLATION DESCRIPTION

PREPARATIONS BEFORE INSTALLATION

1. Open the box and check if the device model is correct and the accessories are complete, otherwise please contact your dealer.

2. SIM card selection, the terminal needs to insert a GSM SIM card. (GSM network is universal)

3. To install the SIM card, insert the SIM card with the missing corner of the SIM card facing inward and the chip facing the USB port.

NOTES: (1) Before installing or removing the SIM card, please cut off the power supply of the terminal;
(2) The terminal SIM card needs to activate the GPRS function;

INSTALLATION

The terminal installation method is recommended to be hidden installation, and the

hidden installation of terminal equipment is recommended to be installed by a

professional organization designated by the dealer. Note the following:

1. Concealed installation, pay attention to waterproof.

2. Avoid placing it with emission sources, such as reversing radar, anti-theft devices and other vehicle-mounted communication equipment.

3. The device has a built-in GSM antenna and GPRS antenna. When installing, make sure that the GPS receiving surface (the surface without a label is the GPS antenna surface) is upward (toward the sky), and there is no metal shielding above it.

SUGGESTED INSTALLATION LOCATION:

1. The hidden place in the decorative frame under the front windshield of the car;

2. Hidden places around the front dashboard of the car (the skin is non-metallic);

3. Under the trim panel under the rear windshield of the car;

4. nside the car door or center pillar;

5. A hidden place in the dashboard of an electric car/motorcycle or under the rear seat.

SECURITY PACK OPTIONAL EXTRAS

The GPS can be easily upgraded to provide vehicle and personal security in addition to vehicle location and travel history.
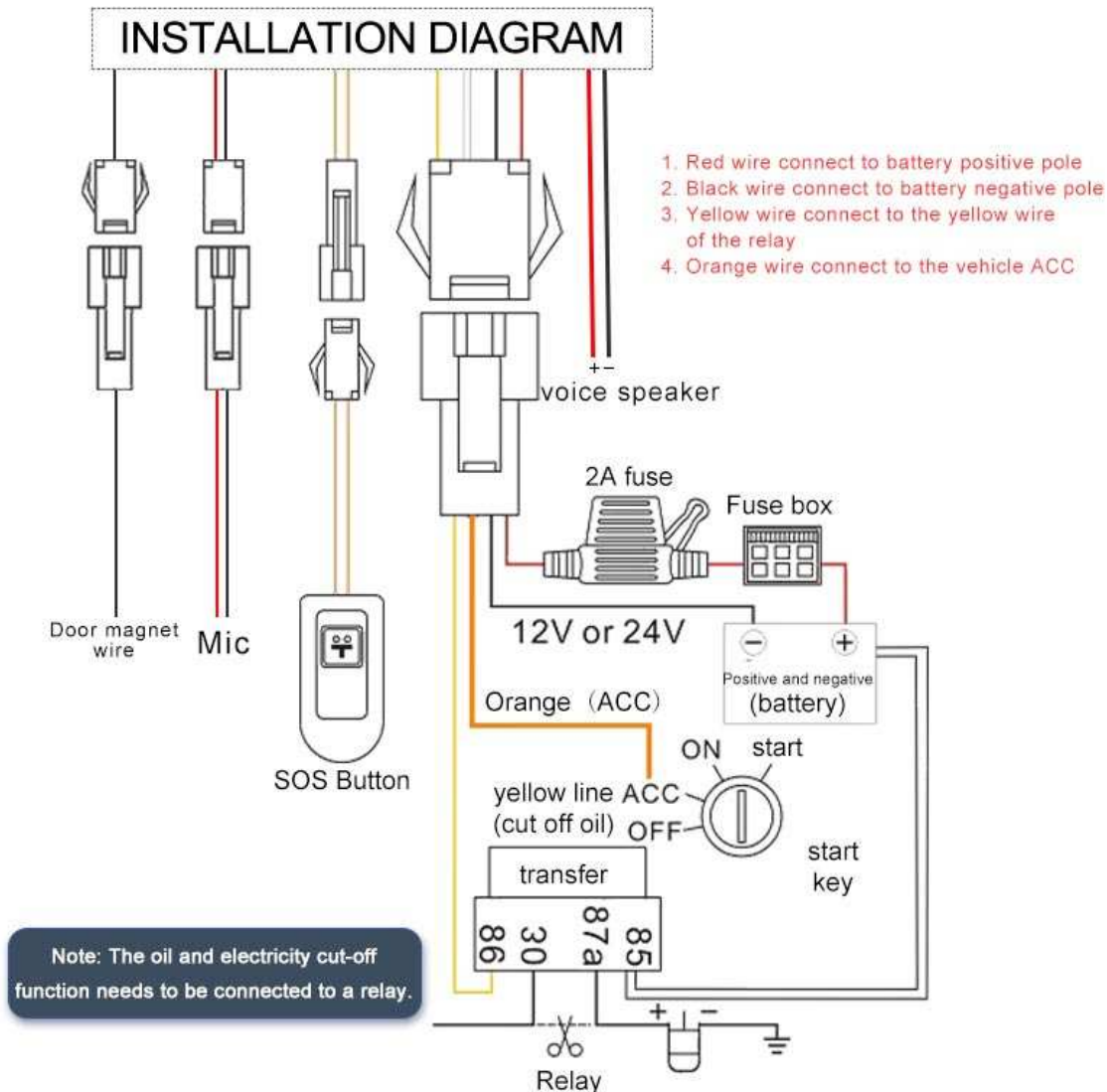
The Security Pack includes:

• An 'SOS' button (Sends the SOS alert to authorised mobile phones)

• Hidden microphone

All controllable via the mobile APP or simple text messages.

WIRING DIAGRAM

It is recommended that this product is installed by suitably qualified persons.

For safety reasons, only immobilise the starter motor

INSTALLATION DIAGRAM

1. Red wire connect to battery positive pole
2. Black wire connect to battery negative pole
3. Yellow wire connect to the yellow wire of the relay
4. Orange wire connect to the vehicle ACC

voice speaker

2A fuse
Fuse box

Door magnet wire
Mic
SOS Button

12V or 24V

Orange (ACC)

Positive and negative (battery)

ON   start
yellow line ACC
(cut off oil)   OFF

start key

transfer

86 30 87a 85

Note: The oil and electricity cut-off function needs to be connected to a relay.

Relay

PRECAUTIONS FOR DEVICE WIRING

Please use the power cord provided by the original manufacturer. The red wire is the positive pole of the power supply, and the black is the negative pole of the power supply. When installing the negative pole of the power supply, please choose separate grounding or grounding, and do not connect it with other ground wires;

The ACC line (orange line) is connected to the ACC switch of the vehicle; if the ACC automatic anti-theft function is required, the ACC line must be connected. Vibration occurs when the vehicle is running in the defense state, and a vibration alarm will be triggered.

The oil and electricity control wire (yellow wire) is connected to the thin yellow wire (optional) on the breaker.

STEPS FOR THE CORRECT USE OF THE PRODUCT: INSTALLATION, STARTUP, SETTING, REGISTRATION

INSTALLATION: When installing, make the GPS antenna face the sky, and the place above the installation location must be covered by materials that do not absorb electromagnetic waves (such as metal, explosion-proof insulation film).

POWER ON: Install the SIM card in the correct direction, connect the line according to the terminal wiring diagram, and then turn the power switch to turn on.

REGISTRATION: The registration method depends on the dealer's platform, and the registration method is also different. Please consult the dealer.

SIM CARD INSTALLATION

- Connect the tracker to the vehicle
- Remove the 'snap-on' top cover of the tracker
- Slide and lift SIM card holder - Insert SIM card
- Close holder and slide forward to lock
- Turn on the trackers' battery back-up isolating switch
- Replace the plastic cover

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TEST THE BASIC INSTALLATION

If you are installer and not the owner of GPS
Using the mobile APP, check for correct operation – do not complete the WIZARD.

- Download and open the APP on your mobile phone
- Press 'SKIP' at the bottom of the 'wizard' screen to go to LOGON screen
- Enter the trackers ID (serial number) and default 123456 password
- Turn vehicle on so the GPS sends data to server
- If location is not correct, press 'MENU'
- Allow a few minutes and check location which should now be correct
- Please ask tracker owner to download the APP and complete the Activation 'Wizard' detailed in this manual

TROUBLESHOOTING

After the terminal is installed for the first time, it has been unable to connect to the background server, and the background display is not online. Please check the terminal installation:

When operating the terminal, if you feel abnormal, please refer to the following problems and solutions; if you still cannot solve the problem, please contact the dealer.

COMMON ISSUES	PROBLEMS	SOLUTION
Poor signal reception	When using terminals in areas with poor reception, such as near high-rise buildings or underground parking lots, radio waves cannot be effectively transmitted	Use the terminal in a location with good signal
The first installation platform shows that it is not enabled	Is the main power cord wiring correct?	Do not install on the car's internal control line
	SIM card is not well installed	Check SIM
	LED indicators status	Check if the indicator light is flashing or always on
	The SIM card has not activated the GPRS function	Please contact the service provider to activate GPRS
The location of the platform map is incorrect	GPS has not been located	Please go to an open outdoor place for positioning
	The vehicle is stationary after the terminal is installed	Drive the car on the road for a few laps
	Is the ACC line connected?	Connect the terminal and insert the car key to open the ACC
The platform shows that the main power is disconnected	Poor contact of the power cord	Check if the power cord of the device is properly connected
Platform shows offline status	SIM card arrears or GPRS cancelled	Please check the SIM card status
	Weak signal in dropped areas	Please go to a place with strong signal and try again

APP INSTALLATION GUIDELINES

Thank you for using AAV GPS TRACKER. The user guide will explain in detail how to operate this product. Please read it carefully before using it in order to get the correct operating method. Part of the functional structure of the product will be changed without notice, and the actual product shall prevail. The manufacturer does not assume legal responsibility for the faults and omissions in the user guide.

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The GPS tracker that transmits its location to the data storing online website, at intervals of your choice, using the mobile phone network, mainly for text and data, all viewable and controlled by the mobile phone APP.

THE MOBILE APP AND WEBSITE

• The AAV GPS TRACKER can be accessed via mobile phone app. Download the APP through either Apple IOS or Android, there is also access through the online PC website.

• Your login to the website and mobile APP is password protected (you choose the password) making your location data confidential and secure.

• The APP is a tool and is used for tracker location, historical travel as well as issuing password protected commands that control how the tracker operates.

• Location data is stored on the website for a continuing 6 month period. More detailed travel history and reporting functions can be found on the easy to use website. www.xadgps.com

MOBILE SIM CARD (not included)

The tracker uses fixed orbit GPS satellites to find its location on the earth. The tracker requires its own mobile SIM card so it can send GPS locations using mobile data to the online website.

The trackers SIM card must have the ability for text and data. (data only SIM cards are not compatible)

Apart from your initial purchase price and installation, your only ongoing cost is for the SIM card usage payable to the SIM provider. Due to the nature of this product, a PrePay SIM card is sometimes the most cost efficient especially if 'auto top-up' is selected when registering the SIM phone number with the service provider. The tracker does not inform you when available credit has been used up.

TIP: *Speak to your SIM provider about sharing text and data with your mobile phone and, if unlimited, it can cost nothing to run the tracker.*

DUAL PASSWORDS – DOUBLE DATA PROTECTION & SECURITY

There are 2 separate unique passwords to protect your personal data.

PASSWORD 1: This is your login password to allow entry to the mobile APP and online website. This password is chosen by you when completing the 'activation wizard'. **Default is 123456**

PASSWORD 2: This password is for text commands sent from the APP or your mobile phone. This password is chosen by you by selecting 'password' in the 'command list'. Default is 123456

NOTE: Only reveal your login and password details to persons who you wish to have full access to the tracker including locations, history and programming options.

DOWNLOAD THE MOBILE APP

Go to the App Store for Apple IOS or Google Play Store for Android.

Download on the **App Store**   GET IT ON **Google Play**

Search for: XADGPS

NOTE: For this tracker to function correctly and accurately, ensure your mobile phone GPS location services are switched on to allow phone and APP tracking.

Look for this in the Apple or Google Play store:

XADGPS
Shenzhen HUIYAJUN technology co., LTD
OPEN

XADGPS
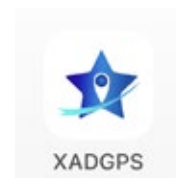
The app you will appear on your phone like this

COMPLETE THE ACTIVATION WIZARD TO START TRACKING!

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THE REGISTRATION FORM – MUST BE COMPLETED

Pairing your tracker to the APP is so easy. The registration form guides you through the process.
All details must be entered. Please have these details at hand:

• Serial number (ID) of the tracker (on carton and tracker)

• Phone number of the SIM card used in the tracker

• Your mobile phone number (exclude country code)

• Trackers SIM card 'APN' (See table below)

• Choose a unique 6-digit logon password (default is 123456)

The wizard must be completed to unlock all the tracker features!

NOTE: Some form information is sent from the APP to the tracker as a password protected text message. The APP wizard opens your phones text service displaying the text code being sent. Just press send. A confirmation text will be received.

The 'APN' (Access Point Name) allows your GPS tracker to connect to the internet via the APP. It is your trackers SIM card providers data channel. Here are some APN examples:

AUSTRALIA		NEW ZEALAND	
Telstra	telstra.ipn or telstra.wap	**Vodafone**	vodafone.net.nz
Vodafone	live.vodafone.com	**Spark**	internet
Optus	connect or yesinternet or connectme	**2 Degrees**	internet
Aldi	mdata.net.au	**Kogan**	live.vodafone.com
Boost	telstra.mms	**The Warehouse**	warehouse
Moose	yesinternet	**Skinny**	wapaccess.co.nz
AmaySim	internet	**Slingshot**	wapaccess.co.nz

*Contact your SIM card provider if your provider is not listed above or to verify the correct APN.

To manually set the APN text your GPS tracker SIM card number:

SZCS#APN=(see chart for corrosponding APN)

For eg: Aldi would be: SZCS#APN=mdata.net.au

LOGIN SCREEN

With the wizard completed, press LOGIN, the login screen appears (appears each time you open the APP)

*Please tick the box if you would like the APP to remember your password.
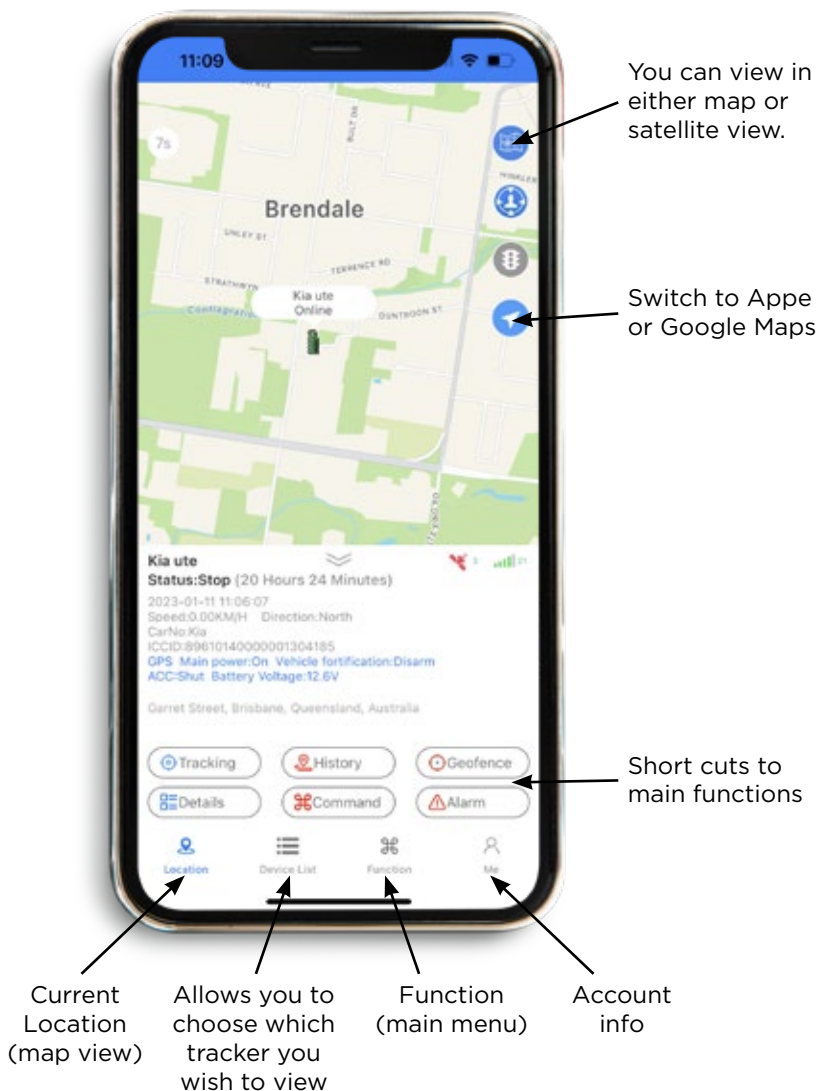
• **SINGLE TRACKER USERS**
  Enter the trackers ID (serial number) and your password

• **GPS ACCOUNT USERS** (For more than one tracker)*
  Enter your account name and logon password

*If you have more than one tracker and want to view them with just one login, contact AAV to create your GPS 'account'.

You can view in either map or satellite view.

Switch to Appe or Google Maps

Short cuts to main functions

Current Location (map view)

Allows you to choose which tracker you wish to view

Function (main menu)

Account info

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'REAL TIME' LIVE TRACKING

After logging in, the 'real time' map screen opens and shows the current or last viewed vehicles' location.

This location is the last one recorded by the APP (and GPS website).

The dialogue box gives the time and date of that location.

This could be right now, or sometime previously.

If this screen is left open, a trace line will be drawn showing the route currently being driven.

The green triangle is the tracker.

FUNTION MENU

- **History –** replay todays travel, yesterday or any 24 hour period. History is retained for 6 months
- **Geofence –** sets a permitted radius of travel
- **Settings –** contains the control of alarms and functions: Admin number, SOS number, Vibration alarm on, Vibration alarm off, Cut off oil (cuts ignition), Recover oil, Operspeed alarm setting, Upload interval, Heartbeat interval, Restart, SMS command
- **Mileage Report –** contains report on your time, mileage, alarm, overspeed, stay and fuel consumption
- **Docking Report –** a report on your journeys
- **Device info –** please complete all details of vehicle/s
    - DeviceName: change to one of your choice (This name shows on the map and other screens)
    - Locked (uneditable) fields: ID Number, ICCID, ExpireDate, Model, LBS.
    - CarNo: Model and/or registration of vehicle
    - DeviceSIM: Enter the phone number of the GPS SIM card
    - Contact, ContactPhone, Icon, Address: enter contact details for person who GPS is registered to

    ContactPhone The tracker needs to know who to send alerts to. If this is left blank no alerts will be sent to you
- **Alarm –** a record of alerts sent to you
- **Alarm Reminder –** turn on and off the alarm reminders
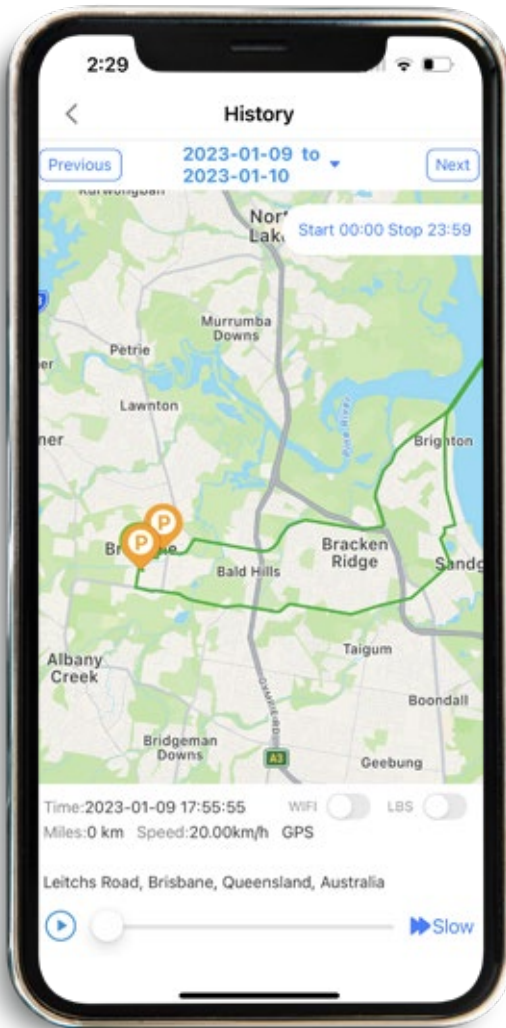
HISTORY PLAYBACK

Select a 24 hour period, the screen opposite will appear:

• Which tracker is being shown

• Date and time

• Start and end points

• The green trace line is the route taken

• Speed at each location

• Direction of travel

The control buttons at the bottom allow you to zoom in or out, play, pause, change progress and change replay speed.

STRAIGHT LINES ON REPLAY

This tracking device will always attempt mobile connection via the 4G network.

If 4G is unavailable, or in area that has high level of 4G traffic it will automatically attempt to find 4G network. This can cause a momentary loss of location data whilst searching for a mobile connection. This can result in odd short straight lines appearing on the replay of a historical journey.

The onboard location memory function of the tracker can assist in alleviating these straight lines.

ONLINE WEBSITE

Go to: www.xadgps.com

• First select 'IMEI' (ID number of tracker) for single tracker users (written on the back of the unit) or

• 'USER NAME' if you have a AAV GPS 'account' for multiple trackers.

• Login are the same details as the mobile APP.
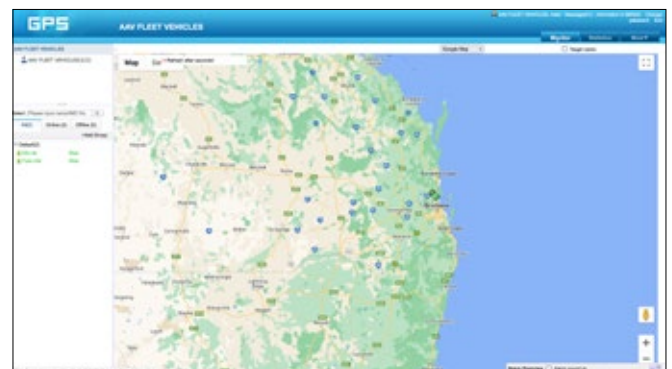
LOGIN PASSWORD

Your 'login' password must be confidential and is chosen by you when completing the 'activation from'. This password can be changed/updated at any time when logged onto the website. Once logged in, the top right corner will show your trackers or account name. Next to this is a 'change password' menu item. Input current password and your new password. *Please make a note of any password changes – best place in 'notes' on your phone.*

FINDING LOCATION JUST BY SENDING A TEXT MESSAGE FROM ANY MOBILE PHONE

Without using the mobile APP, you can find a trackers location by simply sending a normal text from any mobile phone to the tracker:

Send '123' to the number of your GPS SIM card number

1. You will receive a text reply.

2. Tap the blue web address.

3. The phones map will show trackers location.

NOTE: 123456 is the default password. If this was changed when completing the activation form, replace the default with your chosen password.

GEOFENCE (A RESTRICTED AREA OF TRAVEL)

A Geofence is an invisible boundary that has a minimum radius of 100m to a maximum of 5000m. The area is easily set from within the APP.

If the tracker moves in or out of the geofenced area it will send an alert to the paired mobile phones (master + authorised numbers).

Multiple Geofences can be set, for instance, around your home, your place of work, usual parking places, shopping centres, friend's houses, customers premises, etc. Especially useful for business for you can tell when an employee arrives or leaves a customers location.

CREATING A GEO-FENCE

• Select 'Geofence' in Function menu

• Press the '+' in the top right corner

• Enter a name for your Geofence and set the Scope radius

• Select a point on the map to select the location for the centre of your Geofence

• Use the Scope slider bar to increase or decrease the size of the Geofenced area

• The blue circle shows the radius chosen (distance from centre to perimeter). Min' 100m - Max' 5000m

• Press 'SAVE'

The Geofence alert is now automatically 'on'.

To turn the alerts 'off', select 'Geofence' in main menu and a list of created Geofences appears. To delete a Geofence by press and hold till the delete options appears.
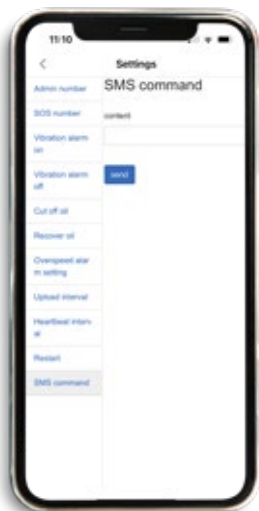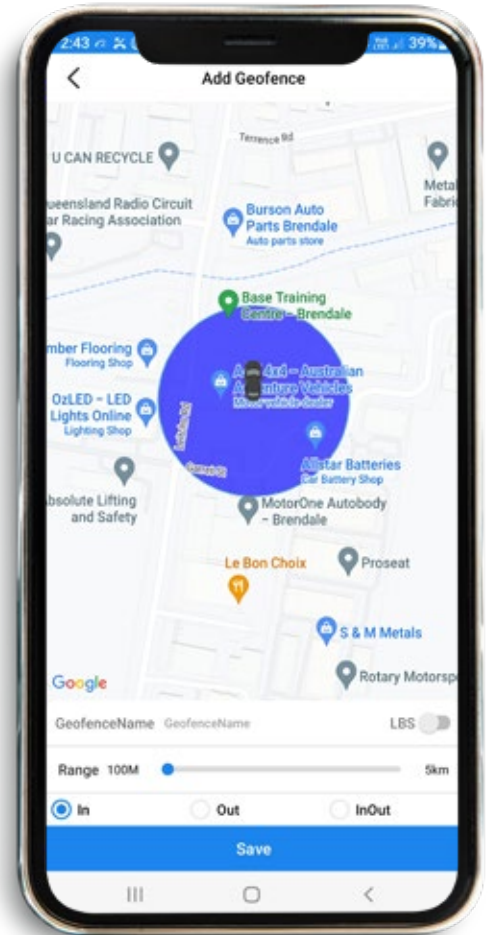
MOBILE APP COMMANDS

These are the SMS (text) commands that can be sent from the mobile APP. These commands are the most frequently used. This screen also shows the current status and previous settings.

When commands are sent from the APP to the tracker, they are sent as text messages from your mobile phone. The APP opens your phones text messages displaying the command as a text code to be sent to the tracker... Just press 'send'.

For most commands, a reply text message will be received confirming the action.

NOTE: Do not send texts directly from your phone (must be via the APP) as the APP's status will not be updated. Should you require greater control, see the 'Advanced User' commands.

SMS INSTRUCTION DESCRIPTION AND USAGE METHOD

When using a mobile phone to send a short message code to the SIM card number of the GPS vehicle communication terminal, the space bar is the space bar. The comma in the following SMS command format is the English input status format, and the letters are case-sensitive according to the command requirements.

Functions	SMS Command Format	Command Reply	Command Error reply
Equipment query equery	sta	PRO[JT808]VER[TA100_TEST_20210826_133242]IMEI[866248053048375]ICCID[89860040191623719956]CSQ[21]NET[1]GPS[1]RF[0]IP[103.44.239.151:8018>FIP[183.44.239.151:8018]GPS[on]	
Vibration Alarm Switch	Fortify SMS Command:111# Disarm SMS command: 000# SMS Command: DEFMODE#	Set Vib Alarm Manual OK! Set Vib Alarm Manual OK! DEFMODE,0#	
Upload interval settings	SMS Command: FREQ,30,180# Query Command: FREQ#	FREQ,30,180#=Success! FREQ,30,180#	FREQ,30,180#=Err!
Fuel and electricity settings	SMS Command: RELAY,1# Query Command: RELAY#	Set relay ok !	
Restore oil and electricity settings	SMS Command: RELAY,0# Query Communication: RELAY#	Clr relay ok!	
APN setting/query	SMS Command: APN, CMMTM# Query Command:APN#	APN,CMMTM#=Success! APN,cmnet,,#	APN=cmmtm#=Err!
Overspeed Alarm	SMS Comand: SPEED,80# Query Sommni: SPEED#	SPEED,80#=Success!	SPEED,80#=Err!
IP Setting	Main IP SMS Command: IP,103.44.239.151,8018# 2nd IP SMS COOD\ : FIP,103.44.239.151,8018# Query location: SMS Command: IP# FIP#	IP,103.44.239.151,8018=Success! FIP,8.135.143.12,5075=Success! IP,8.135.143.12,5075,0# FIP,8.135.143.12,5075,0#	IP,103.44.239.151,8018=Err! FIP,8.135.143.12,5075=Err!
Restart	SMS Command: RESET#	RESET#=Success!	RESET#=Err!
Restore Factory Settings	**SMS Command: FACTORYALL#**	FACTORYALL#=Success!	FACTORYALL#=Err!
SMS location	G123	13050108144,speed:0.00km/h,angle:0.00,2021-09-01 21:52:25,http://maps.google.com/maps?q=N22.565620%2cE113.947602	